FAU FLORIDA ATLANTIC UNIVERSITY	**NEW/CHANGE PROGRAM REQUEST** **Undergraduate Programs**	UUPC Approval 11-4-24
		UFS Approval _____
		Banner _____
	Department N/A	Catalog _____
	College Wilkes Honors College	

Program Name		☐ **New Program***	**Effective Date**
Concentration in Mathematics			*(TERM & YEAR)*
		✓ **Change Program***	Spring 2025

Please explain the requested change(s) and offer rationale below or on an attachment.

Add MAD 4301 Honors Graph Theory to Group B: Upper Division Mathematics Electives.

*All new programs and changes to existing programs must be accompanied by a catalog entry showing the new or proposed changes.

Faculty Contact/Email/Phone	**Consult and list departments that may be affected by the change(s) and attach documentation**
Jason Hedetniemi / jhedetniemi@fau.edu / 5617998649	

Approved by		**Date**
Department Chair		10/11/24
College Curriculum Chair	Terje Hill	10-11-2024
College Dean	Julie Earles	10/11/24
UUPC Chair	Korey Sorge	11-4-24
Undergraduate Studies Dean	Dan Meeroff	11-4-24
UFS President		
Provost		

Email this form and attachments to mjenning@fau.edu seven business days before the UUPC meeting.

Concentration in Mathematics

Students must earn a "C" or better in each course taken to fulfill a concentration requirement.

Legend has it that across the arched entrance to the Academy founded by Plato in 357 B.C. were the words "Let no man ignorant of geometry enter here." Whether or not the legend is true, there is no question of the importance of mathematics at this early institution of higher education. The motto reflects the belief, widely held then and now, that a demonstrated mathematical maturity – a mind trained with logical rigor – is an essential prerequisite for facing the intellectual challenges of advanced education. In addition to training the mind, the discipline of mathematics appeals to our intrinsic sense of beauty and order. As our minds seek patterns and explanations for the patterns we observe, we move inexorably to the world of mathematics.

In addition to its purely aesthetic qualities, mathematics is truly the language of the sciences. While the physical sciences like chemistry and physics have long and obvious connections with mathematics, more and more the biological and social sciences are becoming more quantitative, more modeling-oriented, and simply more mathematical. In today's world, scientists operate largely in the realm of mathematics.

The mathematics program leads to a Bachelor of Arts in Liberal Arts and Sciences with a Concentration in Mathematics. The mathematics program may be tailored for individual students and will constitute an excellent background for a wide range of careers and advanced or professional degree programs. In particular, the course offerings are designed to prepare students for graduate work in mathematics.

Available Options: Concentration in Mathematics; [Minor concentration in Mathematics.](#)

Advisory Board:
[Dr. Terje Hill](#)
[Dr. Warren McGovern](#)
[Dr. Jason Hedetniemi](#)

CONCENTRATION IN MATHEMATICS

Course #	Course Name	Credits
MAC 2311	Honors Calculus I	4
MAC 2312	Honors Calculus II	4
	Three Intermediate Mathematics Courses from Group A	9
MAS 4301	Honors Modern Algebra	3
MAA 4200	Honors Modern Analysis	3
IDS 4970	Honors Thesis *(2 semesters)*	6
	Three Upper Division Mathematics Electives from Group B	9
	One Additional Elective from Group A or B or STA 2023	3
	Total Credits	41

GROUP A: INTERMEDIATE LEVEL MATHEMATICS COURSES

Course #	Course Name	Credits
MAC 2313	Honors Calculus III	4
MAS 2103	Honors Matrix Theory	3
MAD 2104	Honors Discrete Mathematics	3
MAP 2302	Honors Differential Equations I	3

GROUP B: UPPER DIVISION MATHEMATICS COURSES

Course #	Course Name	Credits
STA 3164	Honors Intermediate Statistics	3
STA 4442	Probability and Statistics 1	3
MAS 3203	Honors Introduction to Number Theory	3
IDS 4933	Honors Ethnomathematics	1 or 3
COP 3076	Honors Intro to Data Science	3
ISS 4304	Honors Comput Social Science	3
ECO 4108	Honors Mathematical Economics: Advanced Microeconomics	3
ECO 4412	Honors Econometrics: Applied Regression Analysis	3
MAA 4202	Honors Modern Analysis 2	3
MAA 4402	Honors Introductory Complex Analysis	3
MAS 4107	Linear Algebra 2	3
MAS 4302	Honors Modern Algebra 2	3
MTG 4302	Honors General Topology	3
MAT 4906	Honors Directed Independent Study in Mathematics	1-4
MAT 4930	Honors Special Topics in Mathematics	1-4
MAD 4301	Honors Graph Theory	3

Electives: One elective course may be replaced by an elective in Computer Science. With the advisor's approval, a student may count up to 6 credit hours of upper division mathematics electives taken at other FAU campuses towards the concentration. Students are reminded they need 45 upper-level (3000 or 4000-level) credits to graduate.

Restrictions: To count towards the Concentration, a Mathematics course must be completed with a grade of C or better.

Minor Concentration in Mathematics

For a minor concentration in mathematics, students must complete the following courses with a minimum grade point average of 2.0:

MAC 2311 H Calculus I (4 credits);

MAC 2312 H Calculus II (4 credits);

At least 12 credits of Honors Mathematics Electives numbered 2000 or higher, including at least one 3 credit course numbered 3000 or higher. Of these 12 Honors Mathematics Elective credits at least 6 must be earned at the Honors College.

A computer science course may be used as one of the required electives.
TOTAL: 20 credits.